

E UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Richard M. KRIS et al. Serial No.: 09/885,973 Group Art Unit: Unknown Filed: 22 June 2001 Examiner: Unknown For: HIGH THROUGHPUT ASSAY SYSTEM USING MASS SPECTROMETRY INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §§ 1.56, 1.97 and 1.98 Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 Sir: This information disclosure statement is made in accordance with 37 C.F.R. §§ 1.56, 1.97 and 1.98 as follows: Timing and Fees Under 37 C.F.R. § 1.97(b), no fee or statement is required for filing this information disclosure statement is filed: within three months of the filing date of a national application other than a CPA under § 1.53(d); within three months of the actual filing date of the national phase of a PCT application; OR before the mailing of a first substantive office action (including after filing of an RCE). \boxtimes Under 37 C.F.R. § 1.97(c), this information disclosure statement is filed after the periods specified in 37 C.F.R. § 1.97(b), but before the mailing date of: \boxtimes a final rejection under 37 C.F.R. 1.113; termination of prosecution, e.g. Ex Parte Quayle, M.P.E.P § 609(B)(2); OR a notice of allowance under 37 C.F.R. § 1.311; and

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		is accompanied by:					
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			Each item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application having a mailing date not more than three months prior to the filing date of this information disclosure statement; or				
			No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and to the knowledge of the undersigned attorney after making reasonable inquiry, no item of information contained in this information disclosure statement was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing date of the information disclosure statement.				
Cited I	Materia	<u>ls</u>					
		ancesto	of materials listed but not attached were cited in benefit (35 U.S.C. § 120) or application Serial No, on Form 892 by the Examiner and/or Form y the applicant; see 37 C.F.R. § 1.98(d).				
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Non-E	nglish	Language References				
		An English-language search report or equivalent paper from a foreign patent office is provided indicating the relevance of the cited reference(s).				
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Respectfully submitted,

Anthony J Zelano, Reg. No. 27,969

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Attorney Docket No.: NEOGEN-0001-WO-P02-C1

Date: 24 September 2004

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Approved for use through 10/31/2002. OMB 0651-0031

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Substitute for form 1449A/PTO Complete if Known Application Number 09/885,973 **INFORMATION DISCLOSURE** 22 June 2001 Filing Date STATEMENT BY APPLICANT First Named Inventor Richard M. KRIS et al. Group Art Unit Unknown (use as many sheets as necessary) Examiner Name Unknown Sheet of NEOGEN-001-WO-P02-C01 Attorney Docket Number

U.S. PATENT DOCUMENTS					
Examiner Initials *	Cite No.¹	U.S. Patent Document Kind Cod Number (if known	ranic or raterios or repriseri	Date of Publication of Cited Documen MM-DD-YYYY	
	1	6,200,781 B1	TAL et al.	03/13/2001	
	2	6,423,492	Stuart HARBRON	07/2002	
	3	5,556,762	PINILLA et al.	09/17/1996	
	4	5,474,796	BRENNAN	12/12/1995	
	5	5,565,322	HELLER	10/15/1996	
	6	5,561,043	CANTOR et al.	10/01/1996	
	7	5,700,637	SOUTHERN et al.	12/23/1997	
	8	5,486,452	GORDON et al.	04/10/1987	
	9	6,054,270	SOUTHERN	04/25/2000	
	10	6,423,492	HARBRON	07/2002	
	11	4,883,760	HEELIES	11/28/1989	
	12	6,051,377	MANDECKI	04/2000	
	13	6,051,380	SOSNOWSKI et al.	04/2000	
	14	5,753,439	SMITH et al.	05/1998	
	15	5,650,274	KAMBARA et al.	07/1997	
	16	5,143,854	PIRRUNG et al.	09/1992	
	17	5,378,638	DEEG et al.	01/1995	
	18	5,763,263	DEHLINGER	06/1998	
	19	5,770,456	HOLMES	06/1998	
	20	5,252,743	BARRETT et al.	10/1993	
	21	6,156,501	McGALL et al.	12/05/2000	
•	22	5,843,655	McGALL	12/01/1998	
	23	6,121,048	ZAFFARONI et al.	09/19/2000	
	24	5,945,334	BESEMER et al.	08/31/1999	
	25	5,831,070	PEASE et al.	11/03/1998	
	26	5,807,522	BROWN et al.	09/15/1998	
	27	5,770,722	LOCKHART et al.	06/23/1998	
	28	5,677,195	WINKLER et al.	10/14/1997	
	29	5,599,695	PEASE et al.	02/04/1997	
	30	5,556,752	LOCKHART et al.	09/17/1996	
	31	5,472,672	BRENNAN	12/05/1995	
	32	5,451, 500	STAPLETON	09/19/1995	
	33	5,449,754	NISHIOKA	09/12/1995	
	34	5,358,691	CLARK et al.	10/25/1994	
	35	5,310,469	CUNNINGHAM et al.	05/10/1994	
	36	5,063,081	COZZETTE et al.	11/05/1991	
	37	6,027,889	BARANY et al.	02/22/2000	
	38	5,686,279	FINER et al.	11/1997	
	39	5,683,872	RUDERT et al.	11/1997	
	40	5,212,295	СООК	05/1993	
	41	5,470,705	GROSSMAN et al.	11/28/1995	

08/05/1997 HOLLIS et al. **FOREIGN PATENT DOCUMENTS** Pages, Columns, Lines, Where Relevant Foreign Patent Document Date of Publication of Kind Code⁵ Name of Patentee or Applicant of Cited Document Passages or Relevant Examiner T٥ Initials* Cite No.1 Office³ Number⁴ (if known) Cited Document MM-DD-YYYY Figures Appear 43 WO 9325563 12/23/1993

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44	EP	0063810				11/03/1982		
45	wo	98/29736				07/09/1998		
46	wo	86/00991				2/13/1986		
47	wo	94/11530				5/26/1994		
48	wo	97/19749				06/05/1997		
49	wo	95/35505				09/15/1995		
50	wo	00/37683				06/29/2000		
51	wo	03/002750		1		01/09/2003		
52	wo	00/79008				12/28/2000		
53	WO	94/12670	,			06/09/1994		
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Substitu	te for form 1449A/PTC)		Complete if Known		
				Application Number	09/885,973	
INF	ORMATION	DISC	LOSURE	Filing Date	22 June 2001	
STA	TEMENT B	Y API	PLICANT	First Named Inventor	Richard M. KRIS et al.	
				Group Art Unit	Unknown	
	(use as many she	ets as n	ecessary)	Examiner Name	Unknown	
Sheet	3	of	4	Attorney Docket Number	NEOGEN-001-WO-P02-C01	

	NON PATENT LITERATURE DOCUMENTS				
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Т2		
	54	NIEMEYER et al., "Hybirdization characteristics of biomolecular adaptors, covalent DNA- Streptavidin conjugates," Bioconjugate Chem., 1998, pages 168-175, vol. 9.			
<u>-</u>	55	BROWN, D., "DNA-Encoded Chips Appear to Speed," The Washington Post. Science Biotechnology, 24 November 1997.			
	56	HACIA et al., "To affinityand beyond!" Nature Genetics, 14 December 1996, pages 367-369, vol. 14, no.4.			
	57	BLANCHARD et al., "Sequence to array: Probing the genome's secrets," Analysis Research News, 14 December 1996, pages 1649-1684, vol. 14.			
	58	SCHOLLER et al., Fine-mapping of shotgun template libraries; an efficient strategy for the systematic sequencing of genomic DNA," Nucleic Acid Research, GB Oxford University Press, Surry, Vol. 23, no. 19, 1995, pp. 3842-3849.			
	59	LEHRACH, H., et al., "Hybirdization fingerprinting in genome mapping and sequencing," Genome Analysis Volume 1: Genetic and Physical Mapping, US, Cold Spring Harbor Lab. Press, 1990, pp. 39-81.			
	60	LABAT I., et al., "Simulations of ordering and sequence reconstruction of random DNA clones hybridized with a small number of oligomeric probes," International Conference on Bioinformatics, XX, XX, 1993, ppl 555-565.			

61	Fodor, S., et al., "Multiplexed biochemical assays with biological chips," Nature, 5 August 1993, pages 555-556, vol 364.	
	Litia, A., et al., "Simultaneous detection of two cystic fibrosis alleles using duallabel time-resolved fluorometry," Molecular and Cellular Probes, 10 September 1992, pages 505-512, vol. 6.	
63	FODOR et al., "Light directed spatially addressable parallel chemical synthesis," Science, 15 February 1991, pages 767-773, vol. 251.	
64	GIORDA et al., "Non-radioisotopic typing of human leukocyte antigen class II genes on microplates," Bio Techniques, 1993, pages 918-20, 922-5, vol. 15, no. 5.	
65	EBERSOLE et al., "Spontaneously formed functionally active avidin monolayers on metal surfaces: a strategy for immobilizing biological reagents and design of piezoelectric biosensors," J. Am. Chem. Soc., 1990, pages 3239-41, vol. 112, no. 8.	
1	LANDSGRAF et al., "Direct analysis of polymerase chain reaction products using enzyme-linked immunosorbent assay techniques," Analytical Biochemistry, 1991, pages 86-91, vol. 198.	-
67	SCHENA et al., "Quantitative monitoring og gene expression patterns with a complementary DNA microarray," Science, 1995, pages 467-470, vol. 270.	
60	BLANCHARD et al., "High-density oligonucleotide arrays," Biosens and Bioelectron, 1996, pages 687-690, vol. 11, no. 6/7.	
	ARNHEIM et al., "PCR analysis of DNA sequences in single cells: single sperm gene mapping and genetic disease diagnosis," Genomics, 1990, pages 415-419, vol. 4.	

		SP 1 5	
	70	FERGUSON et al., "A fiber-optic DNA biosensor microarray for the analysis of care expressive," Nature Biotech, 1996, pages 1681-1684, vol. 14. GRAHAM et al., "Gene probe assay on a fiber-optic evanescent wave biosendor,"	
	71	GRAHAM et al., "Gene probe assay on a fiber-optic evanescent wave biosendor,"	
		Biosens. Bioelectron., 1992, pages 487-493, no. 7. STIMPSON et al., "Real-time detection of DNA hybirdization and melting on	<u> </u>
		oligonucleotide arrays by using optical wave guides," PNAS USA, pages 6379-6383, vol. 92.	
	73	HACIA et al., "Detection of hetrozygous mutations in BRCA1 using high density oligonucleotide arrays and two-colour fluorescence analysis," Nature genetics, December 1996, pages 441-447, vol. 14.	
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¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.



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Richard M. KRIS et al.

Serial No.: 09/885,973

Group Art Unit: Unknown

Filed: 22 June 2001

Examiner: Unknown

For: HIGH THROUGHPUT ASSAY SYSTEM USING MASS SPECTROMETRY

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §§ 1.56, 1.97 and 1.98

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

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